I CLAIM:

1. A process for forming an antistatic/antireflective coating on an outer surface of a video display screen comprising the steps of:

sputter-depositing on the outer surface of the video display screen an inner metallic antistatic layer having a precisely controlled thickness within a range of 18-35 nm, wherein a light refractive index of said inner antistatic layer is also precisely controlled within a range of 1.8-2.2; and

sputter-depositing on said inner antistatic layer an outer antireflective layer having a precisely controlled thickness within a range of 110-140 nm, wherein a light refractive index of said outer antireflective layer is also precisely controlled within a range of 1.3 - 1.47.

2. The process of claim 1 wherein said inner antistatic layer is comprised of a doped metallic oxide.

3. The process of claim 2 wherein said doped metallic oxide is ITO, SnO_2:F, ZnO:In, ZnO:F, ZnO:Al, ZnO:Sn, or mixtures thereof.

4. The process of claim 1 wherein said outer antireflective layer is comprised of Al_2O_3, TiO_2, ZnO, ZrO_2, Cr_2O_3, MgO, SiO_2, or mixtures thereof.

5. The process of claim 2 wherein said antistatic/antireflective coating has an electrical conductivity on the order of 10^3 ohms.

6. The process of claim 4 wherein said antistatic/antireflective coating has a reflectivity on the order of 0.7%.

7. A multi-layer coating for a video display panel, said coating comprising:

an inner metallic antistatic layer disposed on an outer surface of the video display panel having a precisely controlled thickness within a range of 18-35 nm, wherein a light refractive index of said inner antistatic layer is determined by the thickness of said inner antistatic layer and said light refractive index is also precisely controlled within a range of 1.8-2.2; and

an outer antireflective layer disposed on said inner antistatic layer and having a precisely controlled thickness within a range of 110-140 nm, wherein a light refractive index of said outer antireflective layer is also precisely controlled within a range of 1.3 - 1.47.

8. The coating of claim 7 wherein said inner antistatic layer is comprised of a doped metallic oxide.

9. The coating of claim 8 wherein said doped metallic oxide is ITO, $Sn0_2$:F, ZnO:In, ZnO:F, ZnO:Al, ZnO:Sn, or mixtures thereof.

10. The coating of claim 7 wherein said outer antireflective layer is comprised of Al_2O_3, TiO_2, ZnO, ZrO_2, Cr_2O_3, MgO, SiO_2, or mixtures thereof.

11. The coating of claim 8 wherein said multi-layer coating has an electrical conductivity on the order of 10^3 ohms.

12. The coating of claim 10 wherein said multi-layer coating has a reflectivity on the order of 0.7%.

13. A method for sputter depositing an inner antistatic layer and an outer antireflective layer on the surface of a video display screen, said method comprising the steps of:

providing a first chamber including first and second cathodes respectively comprised of an antistatic material and an antireflective material, wherein said first chamber includes a sealed aperture;

providing a second chamber coupled to said first chamber by means of a valve;

evacuating said second chamber;

connecting a diffusion pump to said second chamber when the pressure in said second chamber and in said diffusion pump reaches a working pressure;

loading a video display screen in the sealed aperture of said first chamber and evacuating said first chamber to the working pressure;

opening the valve to equalize the pressure between said first and second chambers;

directing energetic positive ions on said first cathode for sputter depositing the antistatic material on the video display screen;

directing energetic positive ions on the second cathode for sputter depositing the antireflective material on the antistatic material;

releasing the working pressure from said first and second chambers; and removing the video display screen from said first chamber.

14. The method of claim 13 further comprising the step of providing an antistatic material having a doped metallic oxide composition.

15. The method of claim 14 wherein said doped metallic oxide composition is ITO, $Sn0_2$:F, ZnO:In, ZnO:F, ZnO:Al, ZnO:Sn, or mixtures thereof.

16. The method of claim 13 further comprising the step of providing an antireflective material comprised of Al_2O_3, TiO_2, ZnO, ZrO_2, Cr_2O_3, MgO, SiO_2, or mixtures thereof.

17. The method of claim 13 further comprising the step of controlling the thickness of each of said antistatic and antireflective layers to within 2-8 nm.

18. The method of claim 17 wherein said antistatic layer has a thickness within a range of 18-35 nm and a light refractive index within a range of 1.8-2.2.

19. The method of claim 17 wherein said antireflective layer has a thickness within a range of 110-140 and a refractive index within a range of 1.3-1.47.

20. The method of claim 19 wherein the combination of said inner antistatic layer and said outer antireflective layer has an electrical conductivity on the order of 10^3 ohms and a reflectivity on the order of 0.7%.

21. The method of claim 13 further comprising the step of isolating said first and second chambers from said diffusion pump while said diffusion pump continues in operation for performing maintenance on said first and second chambers.